IN THE CLAIMS

1-36 (canceled)

37. (currently amended) A compact comprising:

~~70 to 97~~ 80 to 95 vol % component A comprising alpha- and beta-SiAlON and a partially crystalline grain-boundary phase; and

5 to 20 vol.% of component B comprising a hard material which is in globular form and an average grain size of from 1 to 5 ~~of 1-5~~ microns;

wherein the compact is sintered and has a sintered surface and a hardness of at least 1550 HV 10 and wherein said compact has an alpha-SiAlON ~~alpha-SiAlON~~ gradient which decreases from the sintered surface to an inside of the sintered compact;

wherein the sintered surface has an alpha-SiAlON content of up to 100%,

wherein said hard material is SiC, wherein the state of the hard material remains unchanged after sintering;

wherein the content of grain-boundary phase is less than 10 vol.% and comprises phases of aluminum containing melilite or disilicate;

wherein in the inside of the sintered compact comprises from 15 to ~~from 1.5 to~~ 50 vol.% alpha-SiAlON and

wherein the amount of beta-SiAlON ranges from 50 to 85 ~~10 to 90~~ vol.%.

38. (currently amended) The compact ~~material~~ according to claim 37, wherein grain-boundary phase is less than 5 vol.%.

39. (currently amended) The compact ~~material~~ according to claim 37, wherein the grain-boundary phase contains aluminum-containing melilite.

40. (currently amended) The compact ~~material~~ according to claim 37, wherein a maximum grain size of the alpha- and beta-SiAlON is less than 90 ~~is 5~~ μm.

41. (cancelled)

42. (cancelled)

43. (currently amended) The compact ~~material~~ according to claim 37, coated with a wear-reducing coating.

44. (currently amended) A process for producing the compact ~~material~~ of claim 37, comprising powder mixing, shaping, sintering and grinding.

45. (previously presented)A process according to claim 44, wherein component A is formed during a heat treatment at a temperature of from 1800 to 2000°C a retention time at the maximum temperature of 0.5 to 5 hours.

46. (previously presented)A process according to claim 44, wherein sintering is conducted in an inert atmosphere.

47. (currently amended) The compact ~~material~~ produced by the process of claim 44.

48. (currently amended) The compact ~~material~~ according to claim 43, wherein said wear-reducing coating comprises at least one of Al_2O_3, TiN or TiC.

49. (previously presented) A process according to claim 46, wherein sintering is conducted in a gas atmosphere that comprises N_2 or a mixture of N_2 and another inert gas.

50. (previously presented)A process according to claim 46, wherein the inert gas comprises argon.

51. (new) A compact comprising:

80 to 95 vol % component A comprising alpha- and beta-SiAlON and a partially crystalline grain-boundary phase; and

5 to 20 vol.% of component B comprising a hard material which is in globular form and an average grain size of less than 30 microns;

wherein the compact is sintered and has a sintered surface and a hardness of at least 1550 HV 10 and wherein said compact has an alpha-SiAlON gradient which decreases from the sintered surface to an inside of the sintered compact;

wherein the sintered surface has an alpha-SiAlON content of up to 100%,

wherein said hard material is SiC, wherein the state of the hard material remains unchanged after sintering;

wherein the content of grain-boundary phase is less than 10 vol.% and comprises phases of aluminium containing melilite or disilicate;

wherein in the inside of the sintered compact comprises from 15 to 50 vol.% alpha-SiAlON and

wherein the amount of beta-SiAlON ranges from 50 to 85 vol.%.

52. (new) The compact of claim 51, wherein said average grain size of said hard particles is less than 15 microns.

53. (new) The compact of claim 51, wherein said average grain size of said hard particles is less than 5 microns.